

# Product **Specification**

# West P6170 <sup>1</sup>/<sub>16</sub> Din Valve Motor Controller



The new Plus Series VMD Controllers have been specifically designed for open loop valve motor drive applications and feature the improved Plus Series interface and greater field flexibility.

- Jumperless Configuration
- **Auto Detected Hardware**
- **Process & Loop Alarms**
- **Modbus Communications**
- Auto or Manual Tuning
- Motorised Valve Control
- Valve Position Indication
- Remote/Dual Setpoint Options



#### **Technical Data**

#### **Features**

Control Types Full PID with Pre-tune, Self-tune and manual tuning modes.

Valve Control Open Loop Valve Motor Drive.

Auto/Manual Selectable from front panel or via digital input, with bumpless transfer.

Up to 4 possible, two required for valve control, additional outputs for alarm, 24VDC transmitter **Output Configuration** 

power supply or retransmit of process value or setpoint.

Process high, process low, SP deviation, band, logical OR / AND. Also 1 loop alarm for Alarm 1 & 2 Types

process control security. Process alarms have adjustable hysteresis.

Human Interface 4 button operation, dual 4 digit 10mm & 8mm high LED displays, optional choice of colours

(Red/Red, Red/Green, Green/Red or Green/Green), plus 5 LED indicators

PC Configuration Off-line configuration from PC serial port to dedicated configuration socket (communications

option not required). Configuration Software for Windows 98 or higher. West Part Number:

PS1-CON

Input

DC Linear

Impedance Accuracy

Sampling

Thermocouple J, K, C, R, S, T, B, L, N & PtRh20%vsPtRh40%.

**RTD** 3 Wire PT100,  $50\Omega$  per lead maximum (balanced)

0 to 20mA, 4 to 20mA, 0 to 50mV, 10 to 50mV, 0 to 5V, 1 to 5V, 0 to 10V, 2 to 10V.

Scaleable -1999 to 9999, with adjustable decimal point

>10M $\Omega$  for Thermocouple and mV ranges, 47K $\Omega$  for V ranges and  $5\Omega$  for mA ranges

±0.1% of input range ±1 LSD (T/C CJC better than 1°C)

4 per second, 14 bit resolution approximately

<2 seconds (except zero based DC ranges), control O/P's turn off, high alarms activate for T/C

and mV ranges, low alarms activate for RTD, mA or V ranges

**Outputs & Options** 

**Triac Outputs** 

Digital Input

DC Linear Outputs

Transmitter Power Supply

Remote Setpoint / Valve Position Auxiliary Input

**Operating & Environmental** 

Sensor Break Detection

Contacts SPDT 2 Amp resistive at 240V AC (120V AC Max for direct VMD), >500.000 Control & Alarm Relays

operations. (1A 2xSPST 200,000 operations for Dual Relay)

Control SSR Driver Outputs Drive capability >10V DC in  $500\Omega$  minimum

0.01 to 1 Amp AC, 20 to 280Vrms, 47 to 63Hz. 140V Max for direct VMD.

0 to 20mA, 4 to 20mA into  $500\Omega$  max, 0 to 10V, 2 to 10V, 0 to 5V into  $500\Omega$  min.

Accuracy ±0.25% at 250Ω (degrades linearly to 0.5% for increasing burden to specified limits)

Retransmit of PV or SP Only.

Output 24VDC (nominal) into 910Ω minimum to power external devices

2 Wire RS485, 1200 to 19200 Baud, Modbus protocol Serial Communications

Selects between 2 setpoints or Auto/Manual control. Volt free or TTL input

0 to 20mA, 4 to 20mA, 0 to 5V, 1 to 5V, 0 to 10V or 2 to 10V. Scaleable -1999 to 9999.

For Valve Position Indication or Remote Setpoint Input.

Temperature & RH 0 to 55°C (-20 to 80°C storage), 20% to 95% RH non-condensing

100 to 240V 50/60Hz 7.5VA (optional 20 to 48V AC 7.5VA/22 to 65V DC 5 watts) **Power Supply** 

Front Panel Protection IEC IP66 (Behind panel protection is IP20)

Standards CE, UL & ULC recognised

> In accordance with our policy of continuous improvement, we reserve the right to change specifications from those shown in this document P6170 Spec sheet - 01/06

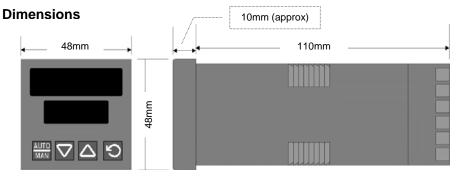


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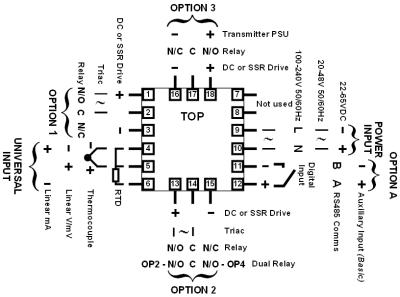
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## **Cut out**

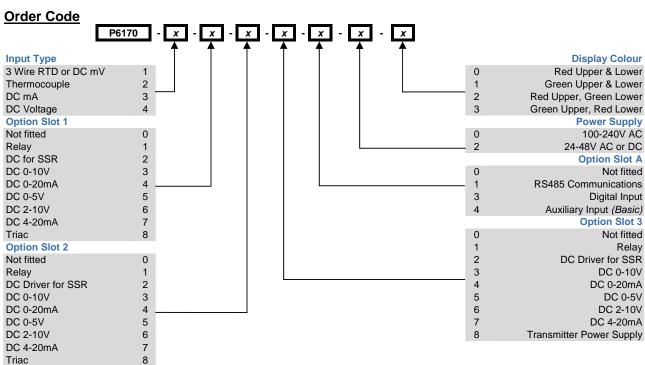


## **Connection Details**



# **Field Reconfiguration**

Input	
Jumper-free configuration for any type	
(no extra parts required)	
Option Slot 1	<b>Part Number</b>
Relay Output	
Linear mA/V DC Output	
SSR Driver Output	
Triac Output	
Option Slot 2 Relay Output	PO2-C10
Linear mA/V DC Output	PO2-C21
SSR Driver Output	
Triac Output	
Dual Relay Output	
	Part Number
Relay Output	
Linear mA/V DC Output	
SSR Driver Output	
24VDC Transmitter PSU.	
Option Slot A	Part Number
Digital Input	PA1-W03
Auxiliary Input (Basic)	PA1-W04
RS485 Comms	PA1-W06



**Dual Relay** 

